Transportation Project Life-Cycle:

I. MASTER PLAN APPROVAL AND ADOPTION BY THE COUNTY COUNCIL

II. TRANSPORTATION FACILITY PLANNING PROGRAM - Division of Engineering Services

Phase I

- MAP-Mobility Action Plan
- Background Data Collection & Public Input
- Travel Demand Forecasting
- Purpose & Need
- Conceptual Alignments & Typical Sections
- Preliminary Impacts
- Concept Plans
- Project Prospectus
- Director of DPWT Approval

Phase II

- On-Going Public Input
- Preliminary Engineering
- Horizontal & Vertical Alignments
- Physical Investigation
- Soils. Storm Drains. Hydraulic. Structural. & Sediment Control
- Right-of-Way
- Intersection Geometrics
- Final Concepts
- Noise
- Environmental
- Construction Sequence
- Quantity Take-Off
- Develop Detailed Scope. Schedule. & Cost Estimate

Transportation Facility Planning Complete

III. PROJECT FUNDING/FINAL DESIGN/CONSTRUCTION

Division of Engineering Services

- PDF (project description form) submitted for CIP (capital improvements Program
- Final Design
- Construction

TRANSPORTATION FACILITY PLANNING PROGRAM DETAILS:

Phase I

BACKGROUND DATA COLLECTION & PUBLIC INPUT

Once a project study is underway, the first activity is Background Data Collection. The goal is to determine the existing conditions and proposed future developments expected in the Study Area. The data collected will form the background and basis for the project assumptions including:

- *project Study Area* (project limits and areas immediately adjacent to or directly influenced by the project)
- *planimetric data* (topography; location of rivers/streams/wetlands; buildings; roads and misc. transportation features)
- *property boundaries*
- *Master Plan/zoning information*
- *traffic counts* (intersection turning volumes; average daily traffic volumes)
- *ridership forecasts; existing and proposed transit service*
- *other transportation projects or planning efforts in the Study Area*
- *environmental features* (wetlands; specimen trees; parks, historic sites; etc.)
- *noise sensitive locations* (schools; parks; churches; etc.)
- flood *plain areas*
- *accident data* (for road projects)
- *existing road geometry* (curves, hills, pavement widths)
- *existing traffic controls* (traffic signals; stop signs; turning restrictions; weight limitations; etc.)

Public input is an important part of the facility planning process. Usually one or more public briefings are held to inform the public of the project under study and to describe the project's scope or specifics (i.e. build a new facility: road, transit project or sidewalk; widen a road; etc.). Throughout the project study the public is encouraged to provide input to the Project Manager via Public Comment Forms distributed at the Public Briefings or by direct contact with the Project Manager.

TRAVEL DEMAND FORECASTING

Average daily traffic volumes, peak period traffic volumes, and turning movements are developed for various years as follows:

a. Current Year - forms the base line from which to understand existing conditions;

b. Projected "Open to Traffic" Year -approximately ten years from start of project study, and approximately twenty years from start of project study.

Beginning with a base of existing traffic, future travel demand takes into account future development, the fixture road network, and annual traffic growth.

PURPOSE AND NEED

Once the existing and future conditions are known in the Study Area, and future travel demand has been determined, the project is then evaluated to see if it is or will be necessary (NEED). If current or future conditions warrant improvement, then the project is evaluated to determine if the project, as proposed, will serve the current or future needs in the Study Area (PURPOSE). If an improvement is NEEDed and the current project has PURPOSE, then the study progresses. If the project does not meet PURPOSE and NEED, then the project is changed to serve the established PURPOSE or the project is stopped due to no current or future NEED.

CONCEPTUAL ALIGNMENTS AND TYPICAL SECTIONS

Conceptual horizontal and vertical alignments and typical sections are developed to best satisfy the purpose and need.

CONCEPT PLANS

The conceptual horizontal and vertical alignments and typical sections are applied to the Study corridor and result in the concept plans. Conceptual designs are created to help determine the project's impacts and to serve as a guide during the Phase II of Transportation Facility Planning and Final Design work if the project proceeds beyond Phase I of Transportation Facility Planning.

PRELIMINARY IMPACTS

The preliminary impacts of the project are determined from the concept plans. Impacts investigated include: future traffic operations; environmental, community; noise, historical compatibility; compliance with Americans with Disabilities Act requirements, and conformance to Clean Air Act requirements. Additionally, a preliminary cost estimate is developed.

PROJECT PROSPECTUS

When the work and analysis for the project study is completed, a Project Prospectus is produced which details all of the activities listed above. The Project Prospectus documents the findings of the Project Study. When complete, it is distributed to the agencies that participating in the Project Study for final review and concurrence with its findings. The findings in the Project Prospectus will include a recommendation on whether to continue with the development of the project.

PUBLIC PARTICIPATION

The public outreach effort that began at the beginning of Phase I culminates in a final public informational briefing. The community reviews the information on the findings and recommendations and provides comments.

DIRECTOR OF DPWT APPROVAL

The Director of the Department of Public Works & Transportation makes a final review of the Project Study and community comment/input. The director has the authority to accept or reject the findings of the Project Study. If the Project Study recommends to proceed with development of the project and the Director concurs, the project will then move to Phase II of Transportation Facility Planning and Phase I is complete.

Phase II

ON-GOING PUBLIC INPUT

Public comment is encouraged during the Phase II of Transportation Facility Planning. Depending on the scale of the project, one or more public briefings may be held to provide an update on the project's status. DPWT will receive public questions and comments at anytime during Phase II of Facility Planning.

PRELIMINARY ENGINEERING

Phase II of Transportation Facility Planning begins the preliminary engineering design work for the project. Major tasks include:

- Performing PHYSICAL INVESTIGATION on-site to develop detailed plans of the existing conditions. This includes detailed planimetric surveys of the project area/corridor.
  Developing the HORIZONTAL (curves) and VERTICAL (grades) ALIGNMENTS

- Determine the specific types of SOILS on-site, and develop preliminary design for controlling stormwater runoff including STORM DRAINS, determining the HYDRAULIC and STRUCTURAL characteristics of the project's design, and developing a SEDIMENT CONTROL plan for use during the project's construction to control soil erosion and runoff.

- Determine the amount or RIGHT-OF-WAY or land necessary to construct the project.

- Determine the INTERSECTION GEOMETRICS for intersections with other County roads along the length of the project. This would include determining the number of approach and receiving lanes, cross-walks, exclusive left or right turn lanes, etc.

- Develop FINAL CONCEPTS for the design of the project at a more detailed scale than what was produced during Phase I of the Transportation Facility Planning Study.

- Determine if special structures are necessary to mitigate NOISE impacts along the length of the project (walls, berms, etc.).

- Determine ENVIRONMENTAL impacts and any necessary mitigation

measures necessary to comply with wetlands, forest conservation, and/or other regulations.

- Develop a CONSTRUCTION SEQUENCE for phasing the different elements of the construction activities. This would include interim traffic control plan, phasing of removal of existing paving/demolition, phasing of construction activities, etc.

- Construction cost estimates are developed during the QUANTITY TAKEOFF phase. This is where elements of the construction process are itemized such as X tons of asphalt at $X.xx/ton; X feet of road striping at $X.xx/foot; or X street trees at $X.xx/tree, etc.

DEVELOP DETAILED SCOPE, SCHEDULE, AND COST ESTIMATE

A detailed plan identifying the specific elements of the project's design and specific tasks to be performed during construction will be developed. It will also have an accurate schedule for performing the final design of the project and the length of time to construct the project. Most importantly, a reliable cost estimate will be developed for the project. When the preliminary engineering has reached the appropriate level of completion (generally 35% of final design), including accurate project schedules and cost estimates, then the Transportation Facility Planning Process for the project is complete. At this stage the project, if recommended to proceed at the end of Phase II, will now become a "stand alone" project. This means that there will now be a specific line item in the Department of Public Works & Transportation's next fiscal year total budget request. A Project Description Form (PDF) for the project is submitted with the rest of the Department of Public Works & Transportation budget request.

Project Funding, Final Design and Construction Details:

PDF (Project Description Form) submitted in CIP (Capital Improvements Program)

Every fiscal year the Department of Public Works & Transportation (DPWT) submits a capital budget request to cover current approved capital projects (design & construction) and new capital project expenses. After a project has successfully made it through the Transportation Facility Planning Process it is ready to be submitted as a "stand-alone" capital improvement project.

In Montgomery County the fiscal year begins on July 1 st. The budget process for the coming fiscal year begins roughly one year in advance, i.e. for FY 02 (7/1/01 through 6/31/02) the process starts in late spring of 2001. The public comment period also begins in late spring with Public Forums held at the Regional Services Centers located throughout the County. Any stand-alone project, as part of the DPWT budget request, passes through several layers of evaluation external to DPWT including the Office of Budget and Management, the County Executive, and then the County Council.

DPWT submits PDF's for the upcoming fiscal year to the Office of Budget and Management (OMB) in September. The Division of Engineering Services is responsible for assembling many of the PDFs for transportation capital improvements for the September submission. Work on the September PDF submissions, including preliminary

OMB review, starts in late-spring.

The DPWT Budget request is reviewed by the Office of Budget and Management (OMB) as part of the entire Executive Branch's budget requests. OMB then forwards its recommendations for the budget to the County Executive. The County Executive evaluates OMB's recommendations for the CIP (Capital Improvements Program). During this time there is the opportunity for the public to provide comment on specific budget items to the County Executive. The County Executive then submits the coming Fiscal Year's request for the entire Executive Branch (including DPWT) to the County Council for funding on January 15th, as mandated by the County Charter.

County Council has the final approval of the composition and size of the coming Fiscal Year's budget for Montgomery County. The County Council conducts public hearings on the coming year's budget as part of Montgomery County's budget process. If a "stand alone" project submitted by the DPWT is recommended by the County Executive and then approved by the County Council as part of the next fiscal year's budget request, it is now funded for final design and construction.

You can contact your local library to see if they have a copy of the most recent Approved Capital Improvement Program (CIP). You can also search Montgomery County Government's web site for additional budget information.

Final Design:

When the project is funded in the Capital Improvements Program (CIP), the Division of Engineering Services can then proceed with final design of the project. When final design is complete project plans are 100% complete and ready for construction. The length of time necessary to perform final design varies depending on the size and complexity of the project. Small projects may take one year or longer while larger projects may take several years to complete.

Also included in the Final Design stage is environmental agency review. The County must apply for and obtain permits before construction can begin. The permitting agencies include: Montgomery County Department of Environmental Protection, Maryland Department of Environment, US Environmental Protection Agency, and the US Army Corps of Engineers. These agencies have the authority to request changes in project design to avoid or mitigate environmental impacts or even deny permits based on environmental impacts. Acquiring the permit for a project can sometimes lengthen the time between project's inception to the start of construction.

As the design work is completed and the final alignments and profile of the project are known, all necessary Right-of-Way is acquired for the project. The pace of Right-of-Way acquisition can also affect the project's schedule. Generally construction cannot start until all Right-of-Way has been acquired unless the Division of Engineering Services has been granted authority to condemn land for the project via Advanced Takings if directly authorized by the County Council.

Construction:

When the plans for the project are completed, the project is ready to be bid out for construction. The Division of Engineering Services will procure a contractor to construct the project. When a contractor has been selected and the County and Contractor have agreed on the terms of the contract, Notice-to-Proceed is given and ground is broken on

the project.
During the construction period the Division of Engineering Services supervises and inspects the work of the contractor to ensure the project is being constructed to Montgomery County's standards for design and quality. After completion and final inspection, the project is opened to the public. The "life-cycle" of a transportation project is complete.

PUBLIC PARTICIPATION PROCESS

The DPWT performs public outreach activities throughout the planning, design and construction of each project to share information, solicit ideas, and respond to issues and concerns. Public outreach activities include open public forums, public hearings, one on one contact, presentations to civic and/or business groups, newsletter mailings, comment cards, etc.

WHO IS THE PUBLIC?

We consider the public to be clients and to be any person or group not a member of the project study team:

- property owners directly affected by the proposed project
- residential community
- business community
- transportation system users
- special interest groups (environmental, transit, bicyclists, etc.)

WHAT DOES THE STUDY TEAM BELIEVE ABOUT PUBLIC PARTICIPATION?

Public participation will be based on these beliefs:

- everyone who might be hurt or helped by the proposed project is included in the process
- everyone is entitled to the same information
- information is provided in ordinary language so that the tradeoffs, costs, and impacts are easy to understand
- assistance is given to any clients who need help to participate effectively

WHAT IS AN OPEN PUBLIC FORUM?

An Open Pubic Forum is a method for the Study Team to provide all of the members of the public with an opportunity to discuss the proposed project. Public forums can be held several times during the life of a project. Forums are held at a central location in the community from approximately 7:00 PM to 9:00 PM. Information is presented in handouts, walk-through displays, videos, artist renderings and computer animations. Discussions can take place with Study Team members in a one-on-one situation on the display area and also in a group question and answer setting at the beginning or end of the forum.

HOW WILL THE STUDY TEAM USE INFORMATION GATHERED FROM THE PUBLIC?

The Study Team will consider all information submitted by the public in evaluating the purpose and local/regional needs for the proposed transportation facility, opportunities and constraints, project impacts and mitigations, and no-build versus build, and various build alternatives.